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Two new species of the clearwing moth (Sesiidae) from Okinawa-jima, the Ryukyus

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Abstract Two new species, *Paradoxecia chura* sp. nov., and *Nokona nigra* sp. nov. are described and figured from Okinawa-jima, the Ryukyus. The genus *Paradoxecia* is recorded from the Ryukyus for the first time.

Key words Lepidoptera, Sesiidae, *Paradoxecia chura* sp. nov., *Nokona nigra* sp. nov., Okinawa-jima, Ryukyus.

We here describe two new species, *Paradoxecia chura* sp. nov., and *Nokona nigra* sp. nov. from Okinawa-jima, the Ryukyus.

The genus *Paradoxecia* Hampson, 1919 is a rather small group, and among the species 12 have been recorded in tropical and subtropical Asia (Gorbunov & Arita, 1997; Arita & Gorbunov, 2001; Kallies & Arita, 2001; Püringer & Kallies, 2004). In this paper, a new species of the genus is described from Okinawa-jima, the Ryukyus, the first representative of the genus from this country. The discovery of *Paradoxecia* species from Okinawa-jima Island is very interesting for the study of the insect fauna of the Ryukyus.

Paradoxecia chura sp. nov. (Fig. 1)

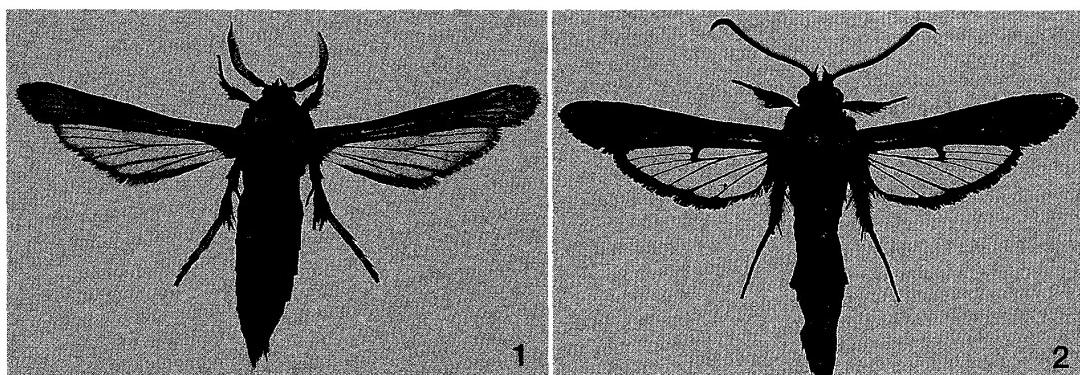
Male (holotype) (Fig. 1). Alar expanse 34.0 mm, forewing length 15.0 mm, body length 19.0 mm, antenna 7.5 mm.

Head: antenna long bipectinate, blackish brown, light brown dorsally; labial palpus rough, basal, mid and apical joint orange; vertex blackish; frons brick-orange; occipital fringe silver-white. Thorax: patagia black; tegulae brick-orange; meso- and metathorax black, metathorax with two brick-orange spots. Legs: fore, mid and hind legs black mixed with brick-orange scales. Abdomen: black; tergite 2–7 each with a broad brick-orange stripe distally; sternite 2–7 each with a narrow brick-orange stripe distally; anal tuft small, brick-orange. Forewing: entirely opaque, brown, black basally; costal margin and Cu₂ blackish brown; cilia brown. Hindwing: transparent, yellow rusty shining; veins and outer margin blackish brown; discal spot undeveloped; cilia brown.

Genitalia. Not examined.

Diagnosis. Due to the broad bright brick-orange stripes on tergite 2–7 of abdomen, the new species can be easily separated from all congeners.

Habitat and bionomics. The holotype was collected in early September at the edge of secondary forest. This specimen was collected by means of artificial sex pheromone lures.



Figs 1–2. Moths of Sesiidae. 1. *Paradoxecia chura* sp. nov., holotype ♂. 2. *Nokona nigra* sp. nov., holotype ♂.

Distribution. Known only the type locality.

Material examined. Holotype ♂, Is. Okinawa-jima, Okinawa-ken, Nakijin-son, Oppadake, 12. 9. 2006, M. Kimura leg., deposited in the National Museum of Nature and Science, Tokyo.

Etymology. The name of this new species is from the Okinawa word “*chura*” meaning beautiful.

Nokona nigra sp. nov. (Figs 2–3)

Description. Male (holotype) (Fig. 2). Alar expanse 38.0 mm, forewing length 17.0 mm, body length 22.0 mm, antenna 9.0 mm.

Head: antenna long bipectinate, black; labial palpus black; frons black. Thorax black; pata-gia and tegula black. Legs: fore, mid and hind legs black. Abdomen black, bluish purple lustre; anal tuft well-developed, black. Forewing: black, with a weak purplish lustre, anterior or transparent area undeveloped, extremely thin and short. Hindwing: transparent; veins brownish; discal spot small, black; outer margin dark fuscous; cilia dark fuscous.

Male genitalia (Fig. 3). Uncus broad, curved medially, rounded distally; tegument moderate and narrow; valva elongate, dorsal half covered with modified multifurcate setae; short simple setae at distal and dorsal margins, and long setae subventrally; aedeagus thick, shorter than valva, with small sclerotized projections both dorso-distally and ventro-distally; sacculus very long, longer than vinculum.

Diagnosis. By reason of the concolorous black abdomen, this new species cannot be confused with any other species of the genus *Nokona*.

Habitat and bionomics. The type series was netted in June and September at the edge of secondary forest. The holotype was collected by means of artificial sex pheromone lures.

Distribution. Known only the type locality.

Material examined. Holotype ♂. Is. Okinawa-jima, Ohgimi-son, Nuuha, 10. IX. 2008, Y. Arita legit. Paratypes. 1♂, Is. Okinawa-jima, Nago-shi, Nago-dake, 2. IX. 2006. M. Sugimoto legit, genitalia slide no. 1823 YA; 1♀, Is. Okinawa-jima, Kunigami-son, Yona, 8. VI. 2005, H. Otobe leg., Holotype and Paratypes deposited in the National Museum of Nature and Science, Tokyo.

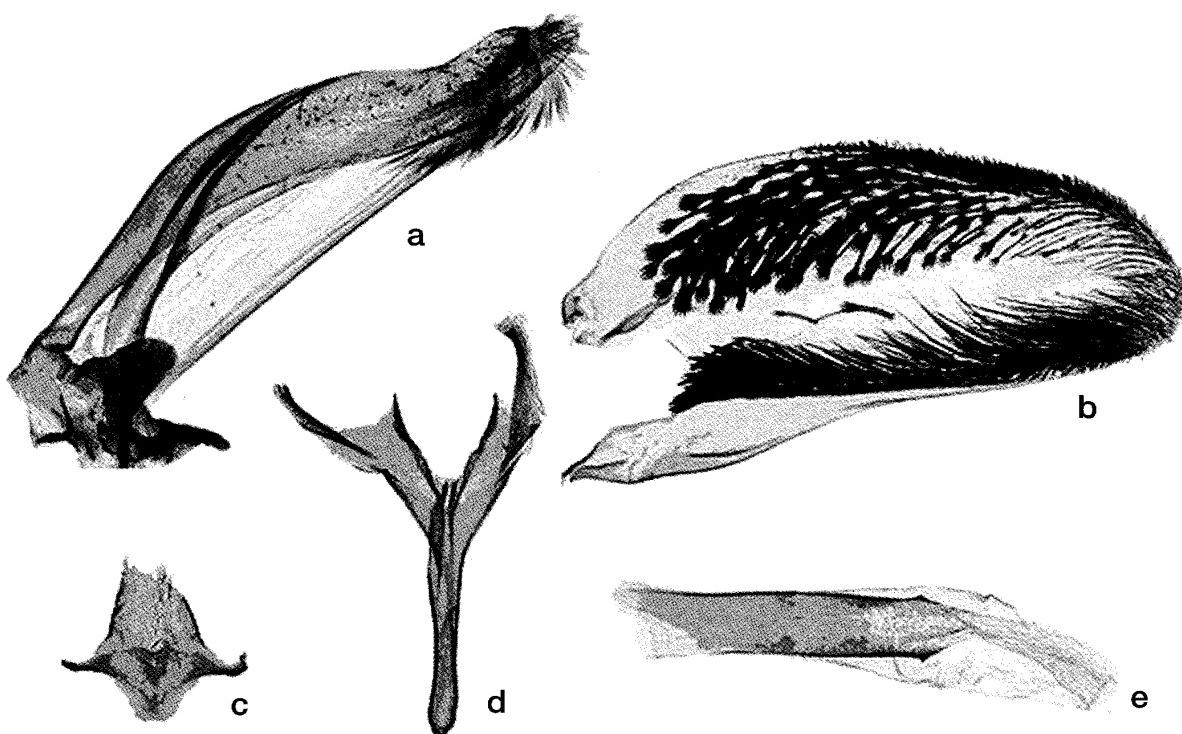


Fig. 3. Male genitalia of *Nokona nigra* sp. nov., paratype. a. Tegumen-uncus complex; b. Valva; c. Juxta; d. Saccus; e. Aedeagus.

Acknowledgements

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摘要

琉球列島沖縄島で採集されたスカシバガ科の2新種（有田豊・木村正明・大和田守）

チュラスカシバ（新称）*Paradoxecia chura* Arita, Kimura & Owada, sp. nov.

本部半島乙羽岳で9月に性フェロモン・ルアーに誘引された雄1頭が採集されている。腹部2–7節の各節に幅広い黄帯があることで、同属の種と区別できる。*Paradoxecia*は亜熱帯アジアから12種が知られているが、日本からは今まで記録がなかった。

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クロスカシバ（新称）*Nokona nigra* Arita, Kimura & Owada, sp. nov.

腹部が黒く、黄帯を欠いているので、同属の種とは容易に区別できる。沖縄島ヤンバル地域で6月と9月に採集されている。

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